

AMENDMENTS TO THE CLAIMS

Please replace the claims, including all prior versions, with the listing of claims found below.

LISTING OF CLAIMS:

1. (Currently Amended) A solid-state image sensing apparatus, comprising

a solid-state image sensing device outputting an electrical signal proportional to an intensity of incident light, the solid-state image sensing device configured for outputting a first signal converted linearly to the intensity of the incident light and a second signal converted natural-logarithmically to the intensity of the incident light;

a plurality of color filters provided in the solid-state image sensing device, wherein the first signal and the second signal output from the solid-state image sensing apparatus comprise a plurality of color signals;

a first signal processing circuit supplied with the first signal from the solid-state image sensing device and performing white balance adjustment of the first signal; and

a second signal processing circuit supplied with the second signal from the solid-state image sensing device and performing white balance adjustment of the second signal, wherein a dynamic range of the second signal is adjusted at the second signal processing circuit thereby a contrast of the second signal is improved, the adjustment of the dynamic range increasing a compressed range luminance distribution of the imaged subject by natural-logarithmically conversion.

2. (Currently Amended) A solid-state image sensing apparatus having a solid-state image sensing device that outputs an electrical signal proportional to an intensity of incident light, the solid-state image sensing device configured for outputting a first signal converted linearly to the intensity of the incident light and a second signal converted natural-logarithmically to the intensity of the incident light, comprising:

a plurality of color filters provided in the solid-state image sensing device, wherein the first signal and the second signal output from the solid-state image sensing apparatus comprise a plurality of color signals;

a first signal processing circuit supplied with the first signal from the solid-state image sensing device and performing white balance adjustment of the first signal;

a second signal processing circuit supplied with the second signal from the solid-state image sensing device and performing white balance adjustment of the second signal, wherein a dynamic range of the second signal is adjusted at the second signal processing circuit thereby a contrast of the second signal is improved, the adjustment of the dynamic range increasing a compressed range of a luminance distribution of the imaged subject by natural-logarithmically conversion;

a logarithmic/linear conversion circuit converting a signal output from the second signal processing circuit to a signal linearly proportional to the intensity of the incident light; and

a third signal processing circuit supplied with a signal from the first signal processing circuit and a signal from the logarithmic/linear conversion circuit.

3. (Cancelled)

4. (Original) The solid-state image sensing apparatus as claimed in claim 2, wherein the first signal processing circuit performs gamma correction of the first signal, and the second signal processing circuit performs gamma correction of the second signal.

5. (Cancelled)

6. (Currently Amended) A solid-state image sensing apparatus, comprising
a solid-state image sensing device outputting an electrical signal proportional to an intensity of incident light, the solid-state image sensing device configured for outputting a first signal converted linearly to the intensity of the incident light and a second signal converted natural-logarithmically to the intensity of the incident light

a plurality of color filters provided in the solid-state image sensing device, wherein the first signal and the second signal output from the solid-state image sensing apparatus comprise a plurality of color signals;

a logarithmic/linear conversion circuit converting the second signal to a signal linearly proportional to the intensity of the incident light; and

a signal processing circuit supplied with the first signal and a signal from the logarithmic/linear conversion circuit, said signal processing circuit performing white balance adjustment of the first signal and the second signal, wherein a dynamic range of the second signal is adjusted at the signal processing circuit thereby a contrast of the second signal is improved, the adjustment of the dynamic range increasing a compressed range of a luminance distribution of the imaged subject by natural-logarithmically conversion.

(Claims 7-17 previously withdrawn)

18. (Currently Amended) An image sensing apparatus, comprising

a solid-state image sensing device controlled to output a first signal and a second signal linearly and logarithmically proportional to an intensity of incident light;

a plurality of color filters provided in the solid-state image sensing device, wherein the first signal and the second signal output from the solid-state image sensing apparatus comprise a plurality of color signals; and

a signal processing circuit receiving the first and second signals, said signal processing circuit processing a first predetermined signal processing and a second predetermined signal processing on the first signal and the second signal, respectively,

wherein the first predetermined signal processing comprises white balance adjustment of the first signal, and the second predetermined signal processing comprises white balance adjustment of the second signal,

wherein a dynamic range of the second signal is adjusted through the second predetermined signal processing thereby a contrast of the second signal is improved, the adjustment of the dynamic range increasing a compressed range of a luminance distribution of the imaged subject by natural-logarithmically conversion.

19. (Previously Amended) The image sensing apparatus of claim 18, said signal processing circuit further comprising

a first signal processing circuit receiving the first signal from the solid-state image sensing device and performing at least a part of the first predetermined signal processing; and

a second signal processing circuit receiving the second signal from the solid-state image sensing device and performing at least a part of the second predetermined signal processing.

20. (Previously Amended) The image sensing apparatus of claim 19, said signal processing circuit further comprising:

a third signal processing circuit receiving the first and second signals processed by the first and second signal processing circuits, respectively, and performs the remaining parts of the first and second predetermined signal processing on the first and second signals, respectively.

21. (New) The image sensing apparatus of claim 1,
wherein the adjustment of the dynamic range is performed in accordance with a luminance distribution of the subject.

22. (New) The image sensing apparatus of claim 2,
wherein the adjustment of the dynamic range is performed in accordance with a luminance distribution of the subject.

23. (New) The image sensing apparatus of claim 6,
wherein the adjustment of the dynamic range is performed in accordance with a luminance distribution of the subject.

24. (New) The image sensing apparatus of claim 18,
wherein the adjustment of the dynamic range is performed in accordance with a luminance distribution of the subject.

25. (New) A solid-state image sensing apparatus, comprising
a solid-state image sensing device outputting an electrical signal proportional to an intensity of incident light, the solid-state image sensing device configured for outputting a first signal converted linearly to the intensity of the incident light and a second signal converted

natural-logarithmically to the intensity of the incident light;

a first signal processing circuit supplied with the first signal from the solid-state image sensing device and performing a predetermined signal processing; and

a second signal processing circuit supplied with the second signal from the solid-state image sensing device and performing a predetermined signal processing,

wherein a dynamic range of the second signal is adjusted at the second signal processing circuit thereby a contrast of the second signal is improved, the adjustment of the dynamic range increasing a compressed range of a luminance distribution of the imaged subject by natural-logarithmically conversion.

26 (New) The image sensing apparatus of claim 25,

wherein the adjustment of the dynamic range is performed in accordance with a luminance distribution of the subject.

27. (New) A solid-state image sensing apparatus having a solid-state image sensing device that outputs an electrical signal proportional to an intensity of incident light, the solid-state image sensing device configured for outputting a first signal converted linearly to the intensity of the incident light and a second signal converted natural-logarithmically to the intensity of the incident light, comprising:

a first signal processing circuit supplied with the first signal from the solid-state image sensing device and performing a predetermined signal processing;

a second signal processing circuit supplied with the second signal from the solid-state image sensing device and performing a predetermined signal processing;

a logarithmic/linear conversion circuit converting a signal output from the second signal processing circuit to a signal linearly proportional to the intensity of the incident light; and

a third signal processing circuit supplied with a signal from the first signal processing circuit and a signal from the logarithmic/linear conversion circuit,

wherein a dynamic range of the second signal is adjusted at the second signal processing circuit thereby a contrast of the second signal is improved, the adjustment of the dynamic range

increasing a compressed range of a luminance distribution of the imaged subject by natural-logarithmically conversion.

28. (New) The image sensing apparatus of claim 27,
wherein the adjustment of the dynamic range is performed in accordance with a luminance distribution of the subject.